Web Programming Languages (CS 6314.001)
Final project
Online Toy Store

Akshay Maganti (AXM180074)
Kavya Jampani (KXJ170004)
Harichandana Epuri (HXE170000)

Project Title: Online Toy Store

Name for the Website: Toy Store

Project Description:
We have designed a web application which enables users to buy toys online.
Main functionalities of the website:

Signup: Signup asks for user's first name, last name, username, email, phone number and password. It will check if the all the required details (username, first name, password, email address), if the username is already existing and also checks the strength of the password and if everything is as per the requirements then it will create a new user in the database with the credentials given by the user. The password is hashed and stored in the database so as to ensure security.

Login: After the user has signed up, he has to login using the username and password which he provided during the signup to access his profile.

Listing the available toys: All the available toys are displayed once the user has logged in. A user can search for a product using a search keyword and also can filter the search based on the categories available (like board games, Toy cars etc).

Paging Functionality: Paging functionality is implemented in the search page. 4 products are shown per page.

Adding a toy into cart: The user can add toys to the cart as well as update the quantity of a toy in the cart. The user can also remove a toy from the cart. The total price of the items in the cart is also displayed.

Placing an Order: Once the user decides to place an order of the items in the cart, he can click on the checkout button. The order will be placed successfully.

History of orders: A user can also view previous orders.
Admin: The admin has the same interface as the user with some additional functionalities. The main controls of the inventory are monitored by the admin.

   Add item: Admin can add a new toy. While adding a toy, admin will also be able to upload an image for the toy.

   Update item: Admin can update details of the toys. Admin will also be able to change picture of a toy.

   Delete item: Admin can delete a toy. The delete implemented here is soft delete. After an admin deletes a toy, it will be removed automatically if that toy is included in any of the user's cart.

Database Design: The main collections in the database includes:

- Admin
- Users
- Products
- Cart
- History

```
db.getCollection('admin').find({})
```

admin   🕐 0.002 sec.

Key	Value	Type
∨ 📇 (1) ObjectId("5cc22b1f7f223cf8eff32fb3")	{ 3 fields }	Object
⬜ _id	ObjectId("5cc22b1f7f223cf8eff32fb3")	ObjectId
"" username	nurcan	String
"" password	$2b$10$XZiXTrcdArV7.ZXMNiPFxeMV9vpj/ox255sjUTT2ijMeDeYN...	String

```
db.getCollection('cart').find({})
```

cart   🕐 0.013 sec.

Key	Value	Type
> 📇 (1) ObjectId("5cb5d57df1f16a6bced63c6e")	{ 3 fields }	Object
> 📇 (2) ObjectId("5cb5d5c8f1f16a6bced63c6f")	{ 3 fields }	Object
> 📇 (3) ObjectId("5cbd0abff1f16a6bced63c71")	{ 3 fields }	Object
∨ 📇 (4) ObjectId("5cbd5c2355cec54f1cff04bf")	{ 3 fields }	Object
⬜ _id	ObjectId("5cbd5c2355cec54f1cff04bf")	ObjectId
"" username	himalayas	String
> 📇 items	[0 elements]	Array
∨ 📇 (5) ObjectId("5cbe13f3849de669fcb3934b")	{ 3 fields }	Object
⬜ _id	ObjectId("5cbe13f3849de669fcb3934b")	ObjectId
"" username	sreekar	String
> 📇 items	[0 elements]	Array
∨ 📇 (6) ObjectId("5cbf7762dc105e4cec2cb51f")	{ 3 fields }	Object
⬜ _id	ObjectId("5cbf7762dc105e4cec2cb51f")	ObjectId
"" username	deepesh	String
∨ 📇 items	[1 element]	Array
∨ 📇 [0]	{ 2 fields }	Object
# id	1	Int32
# quantity	7	Int32
> 📇 (7) ObjectId("5cbf973f82af514a00ec6da3")	{ 3 fields }	Object
> 📇 (8) ObjectId("5cbfa0c882af514a00ec6da5")	{ 3 fields }	Object
> 📇 (9) ObjectId("5cca08493c2a444ce489717f")	{ 3 fields }	Object

```
db.getCollection('history').find({})
```

history   🕐 0.001 sec.

Key	Value	Type
> 🔢 (1) ObjectId("5cbf3c4fc00e862b326c5996")	{ 3 fields }	Object
> 🔢 (2) ObjectId("5cbf42a148dac1f2de88c540")	{ 3 fields }	Object
∨ 🔢 (3) ObjectId("5cbf7762dc105e4cec2cb51f")	{ 3 fields }	Object
☐ _id	ObjectId("5cbf7762dc105e4cec2cb51f")	ObjectId
"" username	deepesh	String
∨ 🔢 items	[19 elements]	Array
∨ 🔢 [0]	{ 2 fields }	Object
# id	1	Int32
# quantity	7	Int32
∨ 🔢 [1]	{ 2 fields }	Object
# id	1	Int32
# quantity	2	Int32
∨ 🔢 [2]	{ 2 fields }	Object
# id	1	Int32
# quantity	3	Int32
> 🔢 [3]	{ 2 fields }	Object
> 🔢 [4]	{ 2 fields }	Object
> 🔢 [5]	{ 2 fields }	Object
> 🔢 [6]	{ 2 fields }	Object
> 🔢 [7]	{ 2 fields }	Object
> 🔢 [8]	{ 2 fields }	Object
> 🔢 [9]	{ 2 fields }	Object
> 🔢 [10]	{ 2 fields }	Object
> 🔢 [11]	{ 2 fields }	Object
> 🔢 [12]	{ 2 fields }	Object
> 🔢 [13]	{ 2 fields }	Object
> 🔢 [14]	{ 2 fields }	Object
> 🔢 [15]	{ 2 fields }	Object
> 🔢 [16]	{ 2 fields }	Object
> 🔢 [17]	{ 2 fields }	Object
> 🔢 [18]	{ 2 fields }	Object
> 🔢 (4) ObjectId("5cbf875b48dac1f2de88c542")	{ 3 fields }	Object

```
db.getCollection('products').find({})
```

products   🕐 0.001 sec.

Key	Value	Type
> 🔢 (1) ObjectId("5cbf3436c00e862b326bf636")	{ 8 fields }	Object
> 🔢 (2) ObjectId("5cbf3436c00e862b326bf637")	{ 8 fields }	Object
∨ 🔢 (3) ObjectId("5cbf3436c00e862b326bf638")	{ 8 fields }	Object
☐ _id	ObjectId("5cbf3436c00e862b326bf638")	ObjectId
# id	4	Int32
"" title	Thomas Toy Train	String
"" img	img/product-4.png	String
"" price	11	String
"" company	Target	String
"" category	toy car	String
# inventory	83	Int32
∨ 🔢 (4) ObjectId("5cbf3436c00e862b326bf639")	{ 8 fields }	Object
☐ _id	ObjectId("5cbf3436c00e862b326bf639")	ObjectId
# id	6	Int32
"" title	Buzz-lightyear: Toy Story	String
"" img	img/product-6.png	String
"" price	12	String
"" company	ScreenRant	String
"" category	toy	String
"" inventory	0	String
> 🔢 (5) ObjectId("5cbf3436c00e862b326bf63a")	{ 8 fields }	Object
> 🔢 (6) ObjectId("5cbf3436c00e862b326bf63b")	{ 8 fields }	Object
> 🔢 (7) ObjectId("5cc2426cbe96d5583c3931f3")	{ 8 fields }	Object
> 🔢 (8) ObjectId("5cc24d573c8ad23b786f8cad")	{ 8 fields }	Object
> 🔢 (9) ObjectId("5cca3db33c2a444ce4897180")	{ 8 fields }	Object
> 🔢 (10) ObjectId("5cca4df33c2a444ce4897181")	{ 8 fields }	Object

```
db.getCollection('users').find({})
```

users   0.001 sec.

Key	Value	Type
▶ (1) ObjectId("5c921b5bc29f7e6128be6832")	{ 6 fields }	Object
▼ (2) ObjectId("5c92b3f8a17c6001f465948a")	{ 6 fields }	Object
_id	ObjectId("5c92b3f8a17c6001f465948a")	ObjectId
first_name	Akshay	String
last_name	Maganti	String
username	Akshay	String
email	magantiakshay@gmail.com	String
password	$2b$10$4Yy.0AJX4exGKPYj/DaOpOiKWKErg0D2DJvHSlFx9rcrbhvn...	String
▶ (3) ObjectId("5c92be97192a760778689714")	{ 6 fields }	Object
▶ (4) ObjectId("5c96c68ed99f555550eb97c0")	{ 6 fields }	Object
▼ (5) ObjectId("5c96c817d99f555550eb97c1")	{ 6 fields }	Object
_id	ObjectId("5c96c817d99f555550eb97c1")	ObjectId
first_name	hello	String
last_name	there	String
username	heyo	String
email	axm180074@utdallas.edu	String
password	$2b$10$VgkmBs96mrP8RZrCEtS1MeWTVuu3HDYbv3PPCAMAFQ...	String
▶ (6) ObjectId("5c9acec69d3123285c3b75a9")	{ 6 fields }	Object
▶ (7) ObjectId("5cbd5c2355cec54f1cff04be")	{ 6 fields }	Object
▶ (8) ObjectId("5cbe13f3849de669fcb3934a")	{ 6 fields }	Object
▶ (9) ObjectId("5cbf7762dc105e4cec2cb51e")	{ 6 fields }	Object
▶ (10) ObjectId("5cbf973f82af514a00ec6da2")	{ 6 fields }	Object
▶ (11) ObjectId("5cbfa0c882af514a00ec6da4")	{ 6 fields }	Object
▶ (12) ObjectId("5cca08493c2a444ce489717e")	{ 6 fields }	Object

Languages/frameworks used:
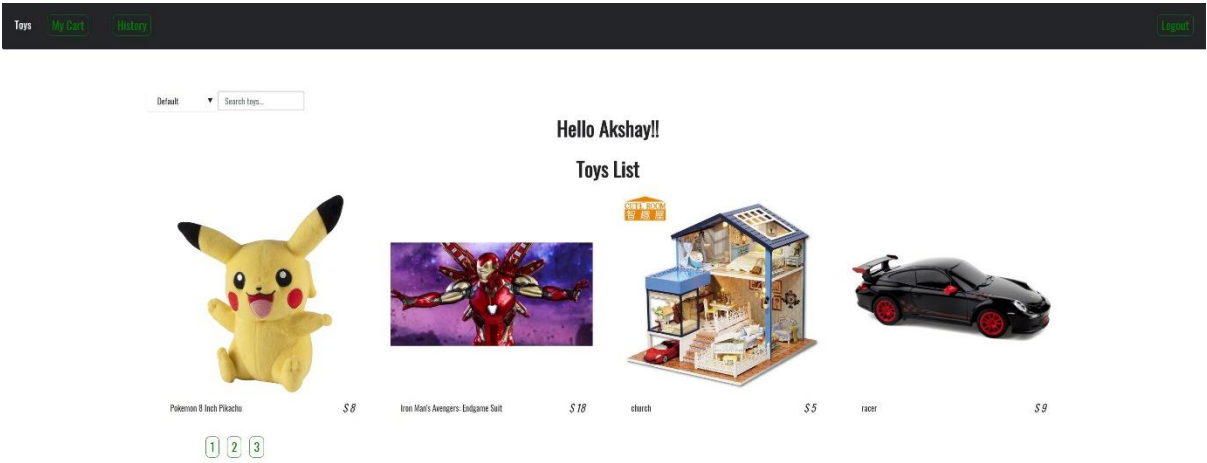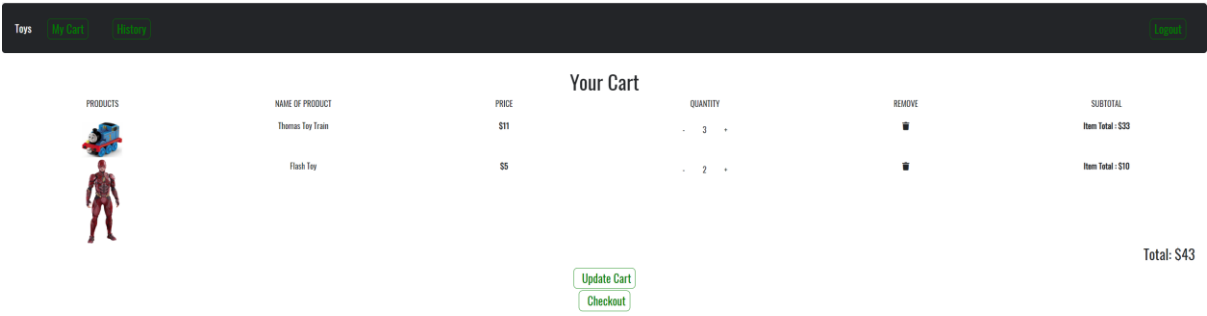HTML

CSS

Bootstrap

ReactJS

NodeJS

ExpressJS

MongoDB

Screenshots of main functionalities:

- ### Home Page

Hello Akshay!!

Toys List

Pokemon 8 Inch Pikachu	*$ 8*	Iron Man's Avengers: Endgame Suit	*$ 18*
church	*$ 5*	racer	*$ 9*

1 2 3

- ### Cart

Your Cart

PRODUCTS	NAME OF PRODUCT	PRICE	QUANTITY	REMOVE	SUBTOTAL
	Thomas Toy Train	$11	- 3 +	🗑	Item Total : $33
	Flash Toy	$5	- 2 +	🗑	Item Total : $10

Total: $43

Update Cart
Checkout

- ### History

Your History

PRODUCTS	NAME OF PRODUCT	PRICE	QUANTITY	TOTAL
	Thomas Toy Train	$11	3	Item Total : $33
	Flash Toy	$5	2	Item Total : $10
	Buzz-Lightyear: Toy Story	$12	2	Item Total : $24
	Thomas Toy Train	$11	4	Item Total : $44
	Miss & Chief 4 Channel Mini Racing Radio Control RC Car, Yellow (Yellow)	$9	5	Item Total : $45
	Buzz-Lightyear: Toy Story	$12	3	Item Total : $36
	Flash Toy	$5	3	Item Total : $15
	Flash Toy	$5	3	Item Total : $15
	Miss & Chief 4 Channel Mini Racing Radio Control RC Car, Yellow (Yellow)	$9	4	Item Total : $36

- **Admin (add a product form)**

Add a new product

Title
Price
Inventory
Category
Company

Choose File No file chosen

Add

- **Product details page**

MONOPOLY Electronic Banking Game Board Game

Model: MONOPOLY Electronic Banking Game Board Game
MADE BY: RETAILNET
Price: $ 10
Some Info About The Product:

Back To Products

Edit   Delete

- **Edit product page**

Edit the product details

Price   10
Inventory   2
Title   MONOPOLY Electronic Ba
Category   Board games
Company   RetailNet
Choose File No file chosen

Save

- **Search results**

Toy ▼ | buzz

Hello Nurcan!!

Your Search Result

Buzz-lightyear: Toy Story · · · · · · · · · · *S 12*
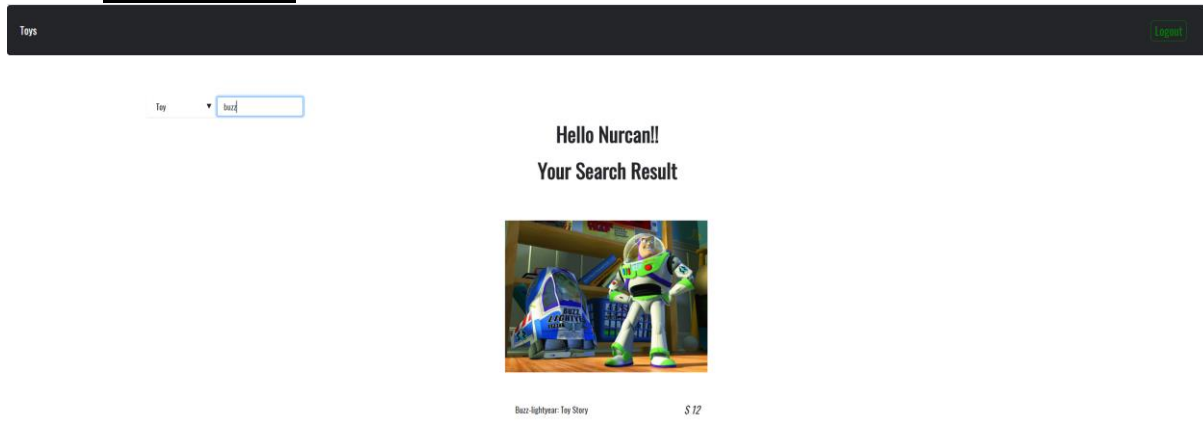
- **Admin Login**

Login as admin

nurcan

••••••••

Login

Are you a user? Login as user

- **User Login**

Login

Akshay

••••••••

Login

Not a member? Sign Up

Are you a admin? Login as admin

- **Signup form**

Sign Up

First Name

Last Name

Username

Email

Password

Confirm Password

☐ I accept the Terms of Use & Privacy Policy

Sign Up

Already a member? Login

Work Division:

Harichandana Epuri	Login, Signup, Add, update, delete functionalities for admin
Kavya Jampani	Product listing, Search, Filter, Pagination, Product detail page
Akshay Maganti	Admin functionalities, Cart functionality, Order history